

Title (en)
FUZZY CONTROLS OF TOWED OBJECTS

Title (de)
UNSCHARFE STEUERUNGEN FÜR GEZOGENE OBJEKTE

Title (fr)
COMMANDES FLOUES D'OBJETS REMORQUÉS

Publication
EP 2929429 A4 20161123 (EN)

Application
EP 13860251 A 20131203

Priority
• US 201213705253 A 20121205
• US 201213716850 A 20121217
• US 2013072840 W 20131203

Abstract (en)
[origin: WO2014089054A1] A fuzzy logic controller for controlling towed objects includes comprises a winch controller to control extension or retraction of a tow cable based on a control signal. A fuzzy logic controller controls a speed at which the tow cable is extended or retracted. The fuzzy logic controller includes an altitude controller storing a membership function defining ranges for a delta altitude variable and determines an altitude control signal based on the range for the measured delta altitude variable. A gain controller stores respective membership functions defining ranges for speed, heading rate, and cable length variables and determines a gain control signal based on the ranges for the determined speed, heading rate, and cable length variables. A command controller determines the control signal based on the gain control signal and the altitude control signal.

IPC 8 full level
G05B 13/02 (2006.01); **G06F 7/00** (2006.01)

CPC (source: EP US)
G05B 13/024 (2013.01 - EP US); **G05B 15/02** (2013.01 - EP US)

Citation (search report)
• [A] CA 2137846 C 19990316 - DEPARTMENT OF FISHERIES AND OC [CA], et al
• [A] FR 2735457 A1 19961220 - TEUPEN MASCHINENBAUGESELLSCHAF [DE]
• [I] CHUN-WOO LEE ET AL: "Simplified trawl system modeling and design of a depth control system using fuzzy logic", FISHERIES RESEARCH, vol. 53, no. 1, 1 September 2001 (2001-09-01), AMSTERDAM, NL, pages 83 - 94, XP055259861, ISSN: 0165-7836, DOI: 10.1016/S0165-7836(00)00264-2
• See references of WO 2014089054A1

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CN109188898A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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DOCDB simple family (application)
US 2013072840 W 20131203; AU 2013356247 A 20131203; CA 2893753 A 20131203; EP 13860251 A 20131203; HK 15111864 A 20151202; JP 2015546557 A 20131203; US 201213716850 A 20121217